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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/834,651	04/16/2001	Takeshi Fukuda	05453.0037	3687

22852 7590 10/20/2003

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EXAMINER

WELLS, LAUREN Q

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 10/20/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/834,651

Examiner

Lauren Q Wells

Applicant(s)

FUKUDA ET AL.

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 12 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6-8 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1617

DETAILED ACTION

Claims 1, 3-8 and 12 are pending. Claims 4-5 are withdrawn from consideration, as they are directed toward non-elected subject matter. The Amendment filed 7/28/03, Paper No. 14, amended claims 1 and 6, and cancelled claims 2 and 9-10.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/28/03 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 6-8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibasaki et al. (5,587,010) in view of Fukuda et al. (6,197,277).

The instant invention is directed toward a composition comprising flaky alpha-alumina particles having an average major diameter of 0.5-25um, an aspect ratio of 55-2000, and a phosphoric compound present in an amount of 0.2-5% by weight, relative to the weight of the alumina particles, when the weight of the phosphoric compound used is converted to the weight of P₂O₅.

Art Unit: 1617

Shibasaki et al. teach a process for producing fine flaky alumina particles and alumina-based plastic material. A composition comprising the particles with an organic water holding material and water is taught. The particles are taught as having a size (diameter) of 1um or less and a thickness of 0.1um or less. The alumina particles comprise 63-67% of a composition comprising water and polyethylene glycol. The reference lacks a specific teaching of the aspect ratio, a phosphoric compound, and zeta potential. See Col. 2, line 52-Col. 4, line 20; Col. 5, lines 9-11; Col. 6, lines 1-38.

Fukuda et al. teach alumina particles having high dispersibility or plasticity, as a result of the addition of a small amount of a phosphoric acid or phosphate on the surface of the alumina particles. The phosphoric acid or phosphate is present in an amount of 0.1-3%, in terms of P₂O₅, based on the alumina particles. The particles are taught as having an isoelectric point at which the zeta-potential is 0 is of pH 4 to 8. See abstract; Col. 3, line 8-27; Col. 4, line 65-Col. 5, line 4.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the phosphoric acid or phosphate taught by Fukuda et al. to the alumina particles of Shibasaki et al. because of the expectation of achieving a product with high dispersibility and plasticity.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Shibasaki et al. to exemplify an aspect ratio of 55-2000 because Shibasaki et al. teach their particles as having a diameter of 1um or less and a thickness of 0.1um or less, which is a range that meets the limitation of the aspect ratio range since, for example, a particle of 1um diameter and 0.01um thickness has an aspect ratio of 100, and it has been held

Art Unit: 1617

that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to teach the zeta potential of the alumina particles of Shibasaki et al. as 0 at pH 4-8, as taught by Fukunda et al., because of the expectation of achieving alumina particles with high dispersibility and plasticity.

It is respectfully pointed out that the recitation "cosmetic" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

The Examiner respectfully points out that the recitation "produced using a source material that will introduce phosphate ions" in instant claim 1, is a product-by-process limitation. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP 2113.

Response to Arguments

Applicant's arguments filed 7/28/03, Paper No. 14, are persuasive to overcome the 35 USC 112 rejections in the previous Office Action.

Applicant argues, "Shibasaki et al. neither teaches nor suggests the claimed aspect ratio. . . Examples 1 and 2 of Shibasaki not that both particle size and thickness share the same proportional relationship to temperature and pressure changes during production. Example 3 of Shibasaki et al. further states that the produced alumina powder has a uniform particle diameter of a little less than about 1um and a thickness of about 0.1um, yielding an aspect ratio of about 10". This argument is not persuasive. First, the Examiner respectfully points out that it is well-established that consideration of a reference is not limited to the preferred embodiments or working examples, but extends to the entire disclosure for what it fairly teaches, when viewed in light of the admitted knowledge in the art, to person of ordinary skill in the art. In re Boe, 355 F.2d 961, 148 USPQ 507, 510 (CCPA 1966); In re Lamberti, 545 F.2d 747, 750, 192 USPQ 279, 280 (CCPA 1976); In re Fracalossi, 681 F.2d 792, 794, 215 USPQ 569, 570 (CCPA 1982); In re Kaslow, 707 F.2d 1366, 1374, 217 USPQ 1089, 1095 (Fed. Cir. 1983). Second, as pointed out above, it is again respectfully pointed out that Shibasaki et al. teach their particles as having a diameter of 1um or less and a thickness of 0.1um or less, which is a range that meets the limitation of the aspect ratio range since, for example, a particle of 1um diameter and 0.01um thickness has an aspect ratio of 100, and it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Art Unit: 1617

Furthermore, the Examiner respectfully points out that a change in size is generally recognized as being within the level of ordinary skill in the art. Or alternatively stated, selection of particle size is not a patentable modification in the absence of unobvious results. In re Rose, 105 USPQ 237 (CCPA 1955).

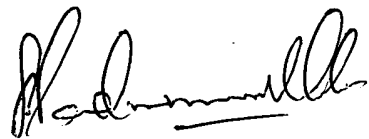
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Q Wells whose telephone number is (703) 305-1878. The examiner can normally be reached on M-F (7-4:30), with alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (703)305-1877. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1234.

lqw



SREENI PADMANABHAN
PRIMARY EXAMINER

8/22/03